

ABSTRACT

A substrate processing system which utilizes reactive substances or carrier gases to process the surface of a substrate is provided. The system includes a gas supply source for supplying a process gas containing a reactive substance, a reservoir tank connected to the gas supply source for reserving the process gas, a reactor for exposing a substrate placed therein to the process gas, a first circulation pipe for circulating the process gas inside the reactor to the reservoir tank, a second circulation pipe for circulating at least part of the process gas in the reservoir tank to the reactor, and a flow regulating valve disposed in the second circulation pipe for controlling the amount of process gas introduced into the reactor.